

May 10, 2019

Initial Recommendation Directions for the Des Plaines River Trail: South Extension Planning Study

The Planning Study for the South Extension of the Forest Preserve District of Cook County's Des Plaines River Trail is currently in the draft development stage. Based on the assessment of priorities identified through the study process thus far – including the findings of the Existing Conditions Report, public outreach activities, steering committee input, and key stakeholder interviews – common issues and opportunities have emerged that provide direction for formulating recommendations. At the same time, efforts to obtain and interpret additional information and input that could help identify potential trail alignments in the study area are ongoing. Results from both previous and ongoing efforts will be taken into consideration and will help to shape the study's ultimate recommendations. This memorandum outlines the major sections or themes proposed for the Study Report and potential key recommendation directions within each section. The memorandum is for discussion purposes only.

Summary of key considerations, issues, and priorities

The existing conditions analysis and input received from the core team, Steering Committee members, and key stakeholders serve as the foundation for the creation of the Des Plaines River Trail: South Extension Planning Study. The Existing Conditions Report identifies key issues and examines information related to potential trail alignments, community connector routes, and feasibility. With an understanding of those issues, the goals of the project are to:

1. Leverage recent, significant investments in the study area to improve off-street trail connections.
2. Identify and incorporate key findings from earlier efforts to develop trail along lower Salt Creek / Des Plaines River.
3. Build upon recent efforts by study-area Villages to identify and designate key community connector bicycle routes to the Des Plaines River Trail.
4. Provide recommendations on potential bikeway facility types and treatments along the community connector routes to improve bicyclist safety and comfort.
5. Determine and assess potential flood risks, impacts, and permitting requirements on wetlands, sensitive habitats, and hydrology in the area of potential trail alignments.
6. Explore new opportunities for trail development in Lyons south of Millbridge Road (where the removal of Hoffman Dam altered the Des Plaines River hydrology), and in the Riverside Lawn area (where MWRD is acquiring flood-prone properties).
7. Provide infrastructure and design recommendations to improve bicycle and pedestrian safety, access, comfort, and convenience at select key destinations.
8. Identify and provide recommendations for intersection and crossing improvements along proposed trail alignment(s).

Potential recommendation directions

CMAP proposes that the recommendations contained within the Des Plaines River Trail: South Extension Planning Study be framed within key sections outlined in the project scope-of-work developed to achieve FPDCC and CMAP goals and objectives for this project. Study recommendation sections will include:

- 1. Des Plaines River Trail Alignments**

The primary objective of the study is identify and evaluate potential alignments for the Des Plaines River Trail within the project study area.

- 2. Key Community Connector Bicycle Routes**

Key community connector routes are potential bicycle-friendly routes within neighboring communities that connect to the trail.

- 3. Key Spot Improvements**

Potential improvements at key locations such as intersections and crossings are specific recommendations that will help facilitate a safe network that connects to the trail.

- 4. Trail Alignment Evaluation Criteria and Method**

A method for evaluating alternatives and identifying preferred alternatives will be proposed and applied.

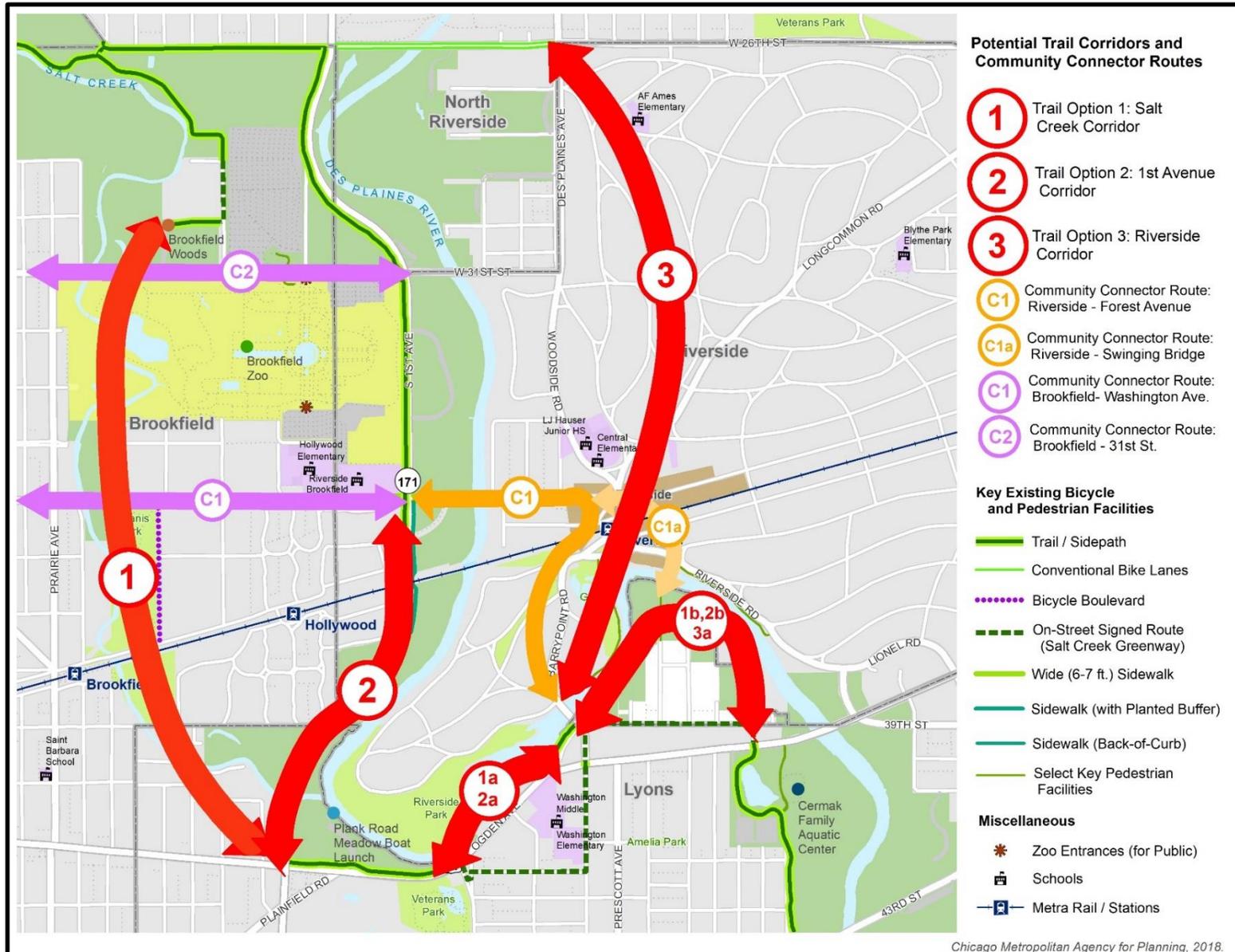
- 5. Supportive policies, programs, funding information**

Des Plaines River Trail - Potential Alignments

This Planning Study was undertaken to help the FPDCC and its partner communities and agencies identify opportunities for creating a continuous trail along the Des Plaines River between 26th Street and Ogden Avenue, to connect the existing Salt Creek Greenway in Brookfield and Cermak-Ottawa Woods Trails in Lyons. The first part of the Study's recommendations section will focus on potential alignments for this major trail connection.

The map on the following page illustrates the conceptual corridors discussed in this memo, and which will be further explored in the draft study.

Figure 1: Proposed Trail and Key Community Connector Route Corridors



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Three separate conceptual corridors have been identified (see Figure 1, above):

1. Option 1– Salt Creek Alignment
2. Option 2 – First Avenue Alignment
3. Option 3 – Riverside Alignment

While preliminary investigation indicates that all are feasible, further analysis is needed to determine routing details and to better understand the potential advantages, challenges, and trade-offs of each option. More precise routing and detailed analysis and assessment of these corridors – and potential combinations of them – will be undertaken in the draft study. However, it should be noted that all analysis, including cost estimates, will remain at the planning-level. Phase 1 engineering will still be required to identify exact alignments, detailed cost estimates, and environmental constraints.

Option 1 – Salt Creek Alignment (1, 1a, and 1b on Figure 1)

The first option consists of a corridor that follows the course of Salt Creek, as closely as possible. This alignment constitutes the western-most of the three identified corridors. It would keep the trail entirely within the Village of Brookfield, until approximately 0.4 miles west of the confluence of Salt Creek and the Des Plaines River, where Salt Creek – and therefore the corridor – passes into the Village of Lyons (near Custer and Southview Avenues). Major barriers along this segment include:

- 31st Street (a 4-lane, high-speed, high volume arterial, with no signals between Golfview and Prairie Avenues)
- Brookfield Zoo (especially service facilities along the western edge of Zoo grounds)
- Salt Creek itself (an alignment in this corridor would need to cross Salt Creek one or more times)
- Metra / BNSF rail lines and ROW along Brookfield Avenue (crossings exist only at Hollywood and Prairie Avenues, and both are at-grade)
- On-street segments and roadway crossings in mixed-traffic conditions

From the border with Lyons, routing would continue either wholly on-street, or partly on-street and partly within Forest Preserve lands on the northeast bank of Salt Creek between the Brookfield Avenue / Metra/BNSF rail lines and 1st Avenue. Major barriers and challenges along this segment of the proposed corridor include:

- Private properties that back up to Salt Creek, in Brookfield and in Lyons (on both banks)
- Potential flood hazards and wetlands in FPDCC land along Salt Creek
- Salt Creek itself (if routing is through Forest Preserve land, on north side of Salt Creek, another crossing will be required)
- 1st Avenue (a 4-lane, high-speed, high volume major arterial, without adequate bicycle and pedestrian accommodation on-structure over Salt Creek, but with signal at Ogden Avenue.)

From the intersection of 1st and Ogden Avenues, near the confluence of Salt Creek and the Des Plaines River, this alignment would be the same as that in Option 2, heading east along Ogden Avenue (or on nearby lands) to the intersection of Millbridge Road/Joliet Avenue and 39th Street. See below under Option 2.

Option 2 – First Avenue Alignment (2, 2a, and 2b on Figure 1)

Option 2 utilizes a corridor along and in lands adjacent to 1st Avenue (IL-171). This option would extend the recently-constructed sidepath on the west side of 1st Avenue, south from Parkview Road to Ogden Avenue.

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The trail corridor would utilize IDOT right-of-way and/or Forest Preserve property adjacent to, and just west of, 1st Avenue. Barriers along this route segment include:

- The viaduct under the Metra/BNSF rail lines, which has 5-6' sidewalks, but no room to expand without reconstruction of the bridge
- The bridge carrying 1st Avenue over Salt Creek, which currently has minimal pedestrian accommodation on-structure (5' sidewalk adjacent to travel lane on west side only)

The condition rating for the 1st Avenue bridge is 7 out of 10, and it is therefore unlikely to be reconstructed for another 20-30 years. For this reason, a free-standing trail bridge adjacent to 1st Avenue (on the west side) would be necessary. Permits to build in the flood plain and wetland mitigation may, depending on exact alignment, be required.

From the intersection of 1st Avenue and Ogden Avenue, the trail would head east, utilizing the existing sidepath on the north side of Ogden Avenue, which extends to Lawndale Avenue. From this point, two routing options emerge. The trail could continue on-street as a signed route (as it currently does). Alternatively, it could be routed along the Des Plaines River, on new land that has emerged as a result of the removal of Hoffman Dam in 2012. In this case, the trail would connect to the existing path in Riverwalk Park, ending at the Hoffman Tower Museum. Challenges for this potential off-street segment of the corridor include:

- Property acquisition and/or easements
- Permits to build in the flood plain and mitigation of any wetland impacts

If the existing on-street signed route is retained, challenges include:

- Cyclists required to ride in mixed-traffic, higher-stress conditions
 - Less “family-friendly” route, meaning that those who are less confident or experienced cyclists could be dissuaded from using trail
 - Trail users must cross major arterial (Ogden Avenue) two times in order to reach the Millbridge Road/Joliet Avenue and 39th Street intersection.
 - Connection with nature/natural setting is lacking

From the intersection of Millbridge Road/Joliet Avenue and 39th Street, east to Ogden Avenue, where the Cermak-Ottawa Woods Trail begins, all three potential trail corridors would follow the same proposed route. This segment passes through unincorporated land north of 39th Street (known as Riverside Lawn), which belongs to the FPDCC or is in the process of being acquired. Challenges in this segment include:

- On-going property acquisition
- Permits to build in the flood plain and mitigation of any wetland impacts

Option 3 – Riverside Alignment (3 and 3a on Figure 1)

Option 3 proposes a corridor that would route the trail on-street, in mixed traffic conditions, through the Village of Riverside – either from the northern boundary of the Village at 26th Street and Desplaines Avenue, or along Forest Avenue, which is a proposed community connector route (discussed below). Challenges for this routing include:

- Cyclists required to ride in mixed-traffic, higher-stress conditions
 - Less “family-friendly” route, meaning that those who are less confident or experienced cyclists could be dissuaded from using trail

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- Connection with nature/natural setting is lacking
- Village bicycle route signage (as currently installed) is minimal and sporadic
- The intersection of 26th Street and Desplaines Avenue, as well as the short but crucial segment between 26th Street and Northgate Rd/Bartram Road, offer very limited opportunity to safely accommodate bicyclists

These three options will be further analyzed and evaluated in the study report.

Key Community Connector Bicycle Routes

In addition to potential Des Plaines River trail alignments, the study will identify key community connector routes, with planning-level recommendations for route improvements. These routes provide local access to proposed trail alignments and nearby community destinations. Three key community connector routes have been identified: two in Brookfield (Washington Street and 31st Street) and one in Riverside (Forest Avenue). See Figure 1. These connections will consist, largely, of on-street bikeways on local roads. Implementation, therefore, will be the responsibility of individual municipalities, in partnership with IDOT and/or other roadway agencies.

Community Connector Route – Forest Avenue, Riverside (Orange C1 on Figure 1)

The Village of Riverside recently identified a preferred bikeway route, which links existing regional bikeways on Village's western and southern borders through its downtown core. The Village shared – and requested support for – the proposed “connector route” in a letter to Cook County Commissioner Jeffery Tobolski, dated January 11, 2018. At its western end, the route begins at the existing sidepath on 1st Avenue (at Ridgeway Road, near Riverside-Brookfield High School). The route continues east along Forest Avenue into downtown Riverside, where it crosses the rail lines on Riverside Road. From there, it runs south along Bloomingbank/Burling, Barrypoint, and Fairbank Roads to Millbridge Road, where, in the Village of Lyons, the Des Plaines River / Salt Creek Greenway Trail will continue south and east to meet the Cermak-Ottawa Woods Trail.

A potential variation or spur to this connector route leads from downtown Riverside (along Riverside Road) to the pedestrian “Swinging Bridge” over the Des Plaines River (Orange C1a on Figure 1). Cyclists would be required to dismount and walk their bikes across the bridge. From there, an existing unofficial/informal trail through FPDCC property leads to Stanley Avenue and 39th Street. These two segments (from downtown Riverside to Millbridge Rd. and from downtown to the Swinging Bridge) are not mutually exclusive and could both be signed and marked as key community bike routes that provide access both to downtown Riverside and to the Des Plaines River / Salt Creek Greenway Trail.

This key community connector route, which includes segments of all three of the Village's designated bicycle routes (Olmsted, Wright, and Palmer Routes), will help integrate the Village bikeway network and connect it to the larger regional trail system.

Community Connector Route – Washington Avenue, Brookfield (Purple C1 on Figure 1)

The Village of Brookfield's Active Transportation Plan identifies Washington Avenue as a key east-west bicycle route, spanning the Village and connecting important destinations, including Eight Corners, Kiwanis

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Park, Hollywood Elementary School, Riverside-Brookfield High School, and the 1st Avenue sidepath (connecting to the Salt Creek Greenway Trail), among others. At the western end, Washington Avenue provides access over freight rail lines and to destinations in La Grange Park.

The Active Transportation Plan recommends installation of traditional bike lanes on Washington Avenue, along with traffic calming measures and treatments, and the Village is pursuing this recommendation. Given the curb-to-curb width (approximately 30') and the lack of on-street parking, this would be feasible. As part of outreach for this project, CMAP discussed the Washington Avenue project and its inclusion as a key community connector route with Village representatives. The Village indicated that they plan to implement bike lanes on Washington Avenue and concur that Washington Avenue, in conjunction with the Arden Avenue bicycle boulevard, constitutes a key community connector route to the Des Plaines River / Salt Creek Greenway Trail and other nearby destinations.

Community Connector Route – 31st Street, Brookfield (Purple C2 on Figure 1)

Brookfield's Active Transportation Plan identifies 31st Street as another key east-west bicycle and pedestrian route, which would provide a crucial connection to the Brookfield Woods picnic area and trailhead, Brookfield Zoo's North Entrance, and the recently constructed 1st Avenue sidepath. The plan presents various options for accommodating bicyclists and pedestrians along and across 31st Street, including sidepaths and intersection improvements at Golfview Avenue, and recommends further study.

The existing trail accommodation on the south side of the bridge carrying 31st Street over Salt Creek represents a major investment and opportunity – as do the Zoo's recent renovations at the North Entrance and the new sidepaths installed along 26th Street and 1st Avenue from 26th Street to Parkview Avenue (0.5 and 1.2 miles respectively). In recognition of the importance of 31st Street for bicycle and pedestrian access and mobility, the Village of Brookfield recently applied to Cook County to undertake a Phase 1 engineering study of options for providing a bikeway along 31st Street. Letters of support were provided by State Representative Zalewski, two Cook County Commissioners (Morrison and Tobolski), the Chicago Zoological Society (Brookfield Zoo), the FPDCC, the Central Council of Mayors, and the President of the Village of Brookfield. The Village requested \$175,000 for the study, but was awarded only \$85,000, making its execution uncertain.

Key Spot Improvements

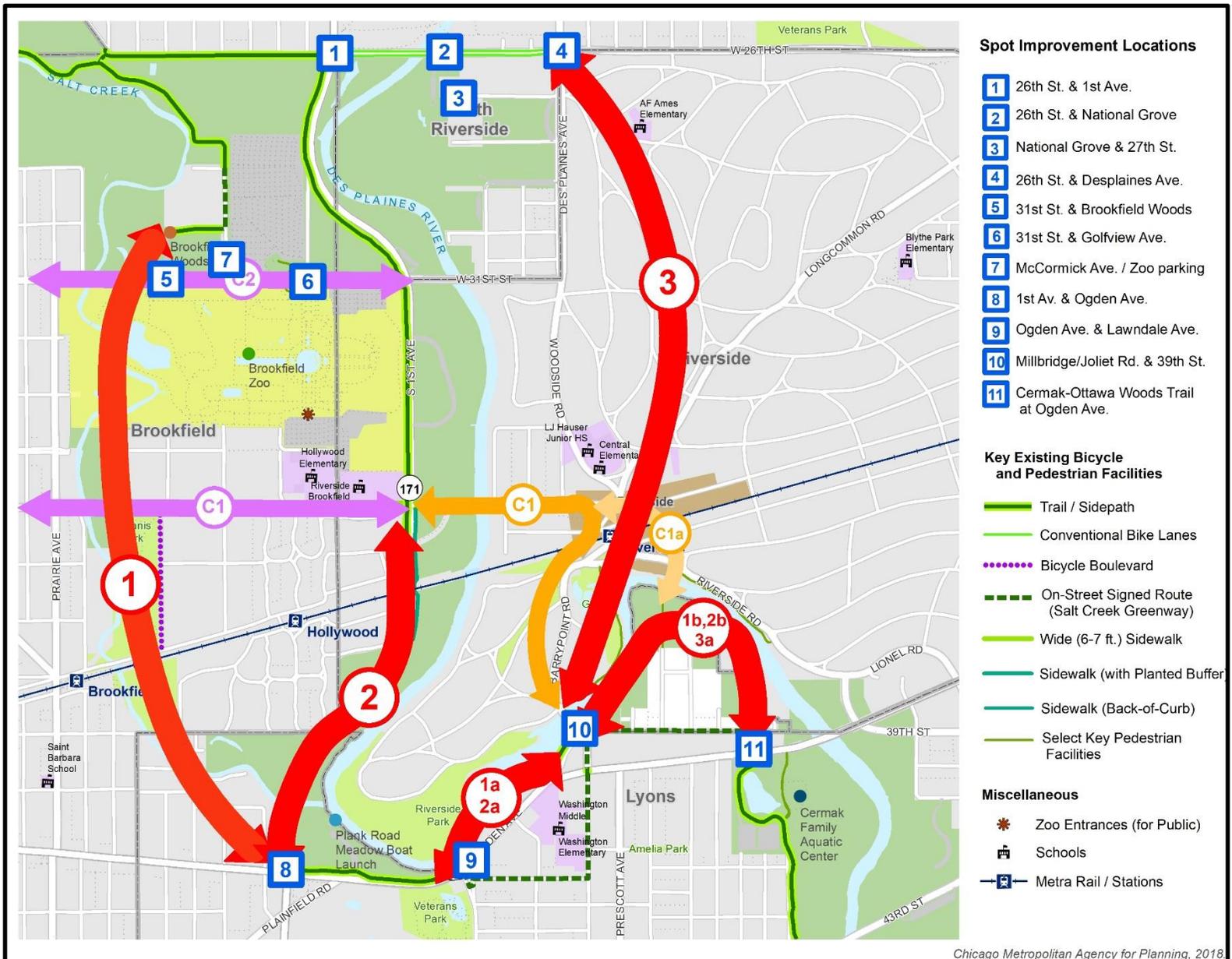
The draft report will identify select locations along proposed trail and community connector routes where further study is needed, with the goal of improving the safety and comfort of bicyclists and pedestrians. Trail crossings, intersections and specific points of potential conflict will be identified and suggestions for potential improvements will be provided.

Spot locations may include some or all of the following:

- 26th Street and 1st Avenue
- 26th Street and National Grove entrance drive
- National Grove and 27th Street
- 26th Street and Desplaines Avenue
- 31st Street and Brookfield Woods entrance drive
- 31st St. and Golfview Avenue
- McCormick Avenue / Zoo parking lot
- 1st Avenue and Ogden Avenue
- Ogden Avenue and Lawndale Avenue
- Millbridge/Joliet Road and 39th Street
- Cermak-Ottawa Woods Trail at Ogden Avenue
 - Cermak-Ottawa Woods Trail at Joliet Road (*outside study area*)
 - Cermak-Ottawa Woods Trail at 47th Street (*outside study area*)

Figure 2 on the following page illustrates spot locations that may be further explored in the draft study.

Figure 2: Potential Spot Locations



Trail Alignment Evaluation Criteria and Method

The following are proposed criteria, grouped into five categories, to be used in evaluating the overall feasibility and desirability of the three identified potential corridors. A suggested weight is given for each category. These weights are derived from the project scope and stated goals, analysis of existing conditions and input received from core team members and key stakeholders. Within each category, individual criteria may also be weighted. Additional input from the Steering Committee and key stakeholders will be used to finalize the criteria, weights, and method.

User experience (22%)

- Appealing and comfortable for a wide range of cyclist types
- Family-friendliness (adults with cycling children)
- Utility and access to multiple users (inline skaters, runners, scooters, etc.)
- Degree that corridor/segment provides a natural setting and a connection to nature
- Consistency with existing regional trails

Safety (22%)

- Off-street vs. on-street
- Traffic volumes and speeds (Level of Traffic Stress) for on-street segments
- Number of arterial and other major crossings
 - At signalized locations
 - At stop-controlled locations
 - At uncontrolled locations

Connectivity / destinations (17%)

- Correlation with existing trails
- Access to key destinations
- Ease of navigation
- Directness of route

Environmental impacts (17%)

- Flood hazard
- Wetlands impact
- Environmental permitting
- Sensitive habitat impacts

Implementation (22%)

- Public support
- Overall anticipated cost (order of magnitude)
- Funding prospects
- Barriers

Policies, Programs, and Implementation

In addition to infrastructure recommendations, the study may also include a number of recommended policies, programs and implementation strategies to assist project partners and key stakeholders (e.g. Villages, Brookfield Zoo) in improving conditions for, encouraging, and educating residents and visitors about the benefits of bicycling and walking. These may include:

- ***Bicycle parking ordinances.*** The Study may provide resources to assist the Villages in developing bicycle parking ordinances and policies.
- ***Community biking and walking events.*** Special events such as community bike rides, “ride your bike to work week” and “walk/ride to school days” could be organized by study area Villages, Park Districts, and/or School Districts, or through a partnership between these and other stakeholders.
- ***Bicycle riding and safety education.*** The Study may also recommend that communities and partner organizations work together to provide and promote classes, events, and resources around bicyclist safety – aimed at both bicyclists and motorists. An example of one such resource is Ride Illinois’ online Bike Safety Quizzes for children, adult cyclists, and motorists.
- ***Partnerships, grants and alternative funding sources to assist with implementation.*** The Planning Study will include potential funding sources and partnerships that will assist with implementation. For example, the Study will recommend that the FPDCC, study area municipalities, and roadway and permitting agencies form partnerships to undertake engineering studies, to obtain all necessary permits, and to seek funding for advanced engineering and construction of preferred alternatives or individual projects related to that alternatives.

Conclusion

We would like to request review and guidance from the Steering Committee on the potential recommendation directions described in this document. We would like your feedback by **xxx, xxx, 2019**. Once recommendation directions are finalized we will begin to create the Draft Study which we hope to present to you in the next few months.